CSA-230M / CSA-240M

Full automatic, auto tracking Satellite antenna

Instruction Manual

Ver. 1.2

Thank you for purchasing our product.
Please read this instruction manual carefully before mounting and operating this antenna!

Pls write down the serial number of this antenna.
In case of questions pls inform us of this number:

Ser. Nr.: _____

The Camos CSA-230M / CSA-240M enables reception on the move of the major European satellites like ASTRA 1, ASTRA 2, HOTBIRD and SIRIUS.
If you want to watch TV or access the Internet via satellite, even when your vehicle is moving, here's the equipment you need. The sat dome is compact in size, light in weight, reliable in operation and incredibly easy to operate and install: there's just one co ax cable to run.
Even if the in-motion facility isn't needed, the system's simplicity and neatness makes it an attractive alternative to conventional dish systems.
Two sizes are available: both have the same diameter but differ in height. The larger model (CSA-240M) is designed for use in areas which are outside the central area of a satellite's footprint.

1. Standard accessory

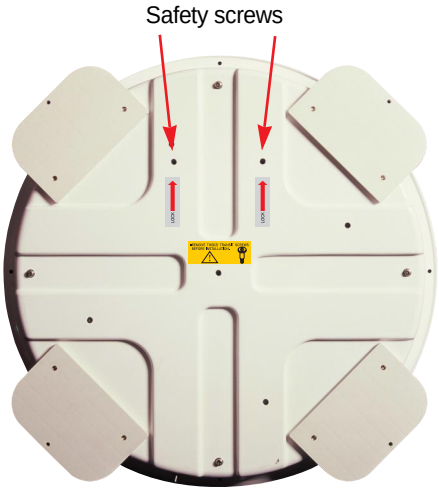
- Sat Antenna CSA-230M / CSA-240M
- Control box incl. power cable
- 1 HQ co-ax cable (10m) with F-plug on both ends
- 1 HQ co-ax cable (1m, black)
- 1 Gel protection cap for F plug

2. Installing your antenna

We basically recommend installing the CSA-230M / CSA-240M with the help of your professional dealer/workshop!

Pls pay attention that installing the antenna increases the height of your vehicle!

Attention! Pls remove both safety screws on bottom of antenna!



Antenna bottom

Important!
Pls absolutely keep to each individual point of mounting instruction!

General:

Pls take care of a suitable workplace, a garage or hall is better than a place outside. The ambient temperature during sticking the antenna should lie within a temperature between +5˚C to max.+25˚C. If you work outside **avoid direct sunlight!**
Always keep to the instructions dealing with chemical products.
Take care of necessary hygienic working conditions.

Preparation:

1. Assure that the roof of your vehicle is able to carry the antenna. If you are not sure pls fix a metal plate (Alu, appr. 2mm thickness) onto the roof. Pls also ask the vehicle's manufacturer.

2. Pls check completeness of parts.

3. Put the antenna on the selected mounting place on the car roof and adjust if necessary. The mounting place must be even and no other roof constructions may cover the reception area of the antenna.
   Mark the outline of antenna feet with a suitable pen.
   In case of problems (e.g. the roof is not even but has a curved form instead) pls call our hotline to arrange further steps.

4. Replace the antenna.
   Clean the mounting place and the antenna feet with the supplied special cleaning fluid "Reiniger1" and the supplied fleece (pls wear the supplied Latex gloves!).
   Grind the marked fixing areas and antenna feet with sandpaper (not too much, the surface must be rough a little bit only), clean the surface and antenna feet with cleaning fluid 1 again and wait another 10 minutes.
   Attention! Now do not touch the cleaned surface any more!

5. Apply (with the help of the wool wiper-pls wear the supplied Latex gloves!) the Primer 2 evenly and thin onto the cleaned surface and feet. Then pls wait another 10 minutes. **Attention! Do not touch the cleaned surfaces any more!**
   Close the Primer 2 bottle at once after use.

Note:

If the surface of the mounting place is made from unknown material, we recommend a "test sticking". If necessary we can arrange a material analysis at your cost.

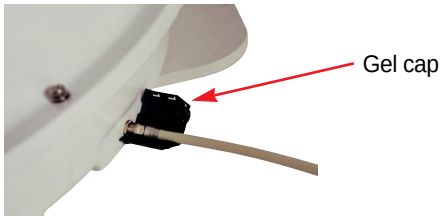
Sticking the antenna to your vehicle's roof:

1. Cut the tip of the supplied cartouche special glue "Spezialkleber 3" (pls wear the supplied Latex gloves!).
2. Apply evenly the glue onto the antenna feet (thickness of glue layer appr. 3 to 4mm)
3. Pls put the antenna (max. 5 minutes after applying the glue!) on the selected mounting place on the car roof. Press the antenna feet smoothly ontot the roof and fix the antenna with tape e.g. to avoid moving. After pressing the antenna feet onto the roof the minimum thickness of the glue layer must be appr. 2mm.
   Now the glue needs a hardening time of appr. 48 hours (air humidity of 50%).
   If the air humidity is lower than 50% pls spray some water into the air in the surrounding of the antenna feet.
4. Remove the outcropped glue on the sides of antenna feet and clean the surface with the supplied fleece and special cleaning fluid "Reiniger1".
5. In addition you can fix the antenna feet with the help of 4 screws. Pls set the screw **after** hardening of the glue.

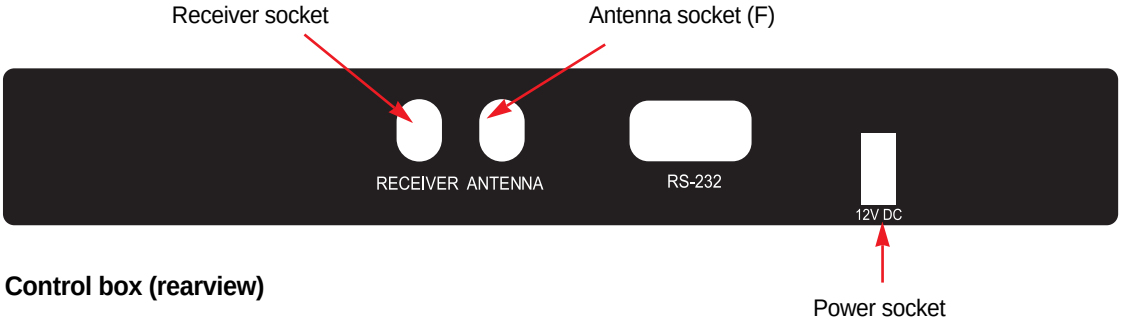
3. Connections

Do not mount the Control box and your satellite receiver in the area of the vehicle's airbags!
Lay the cables carefully to avoid short circuit! Pay attention to existing cables!

1. Connect the antenna by plugging the long white cable into antenna and control box.
2. Put the gel cap over the antenna socket.

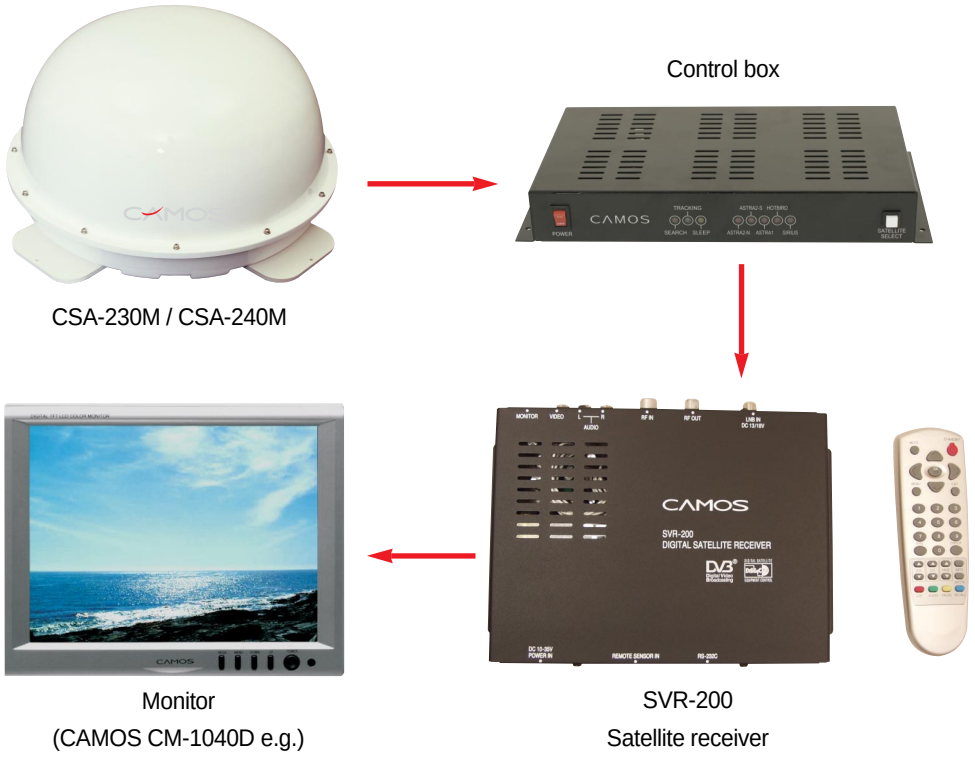


3. Connect the power cable (red/black) to the control box and power source (car battery e.g.).
   Positive terminal (+) = red colour
   Negative terminal (-) = black colour

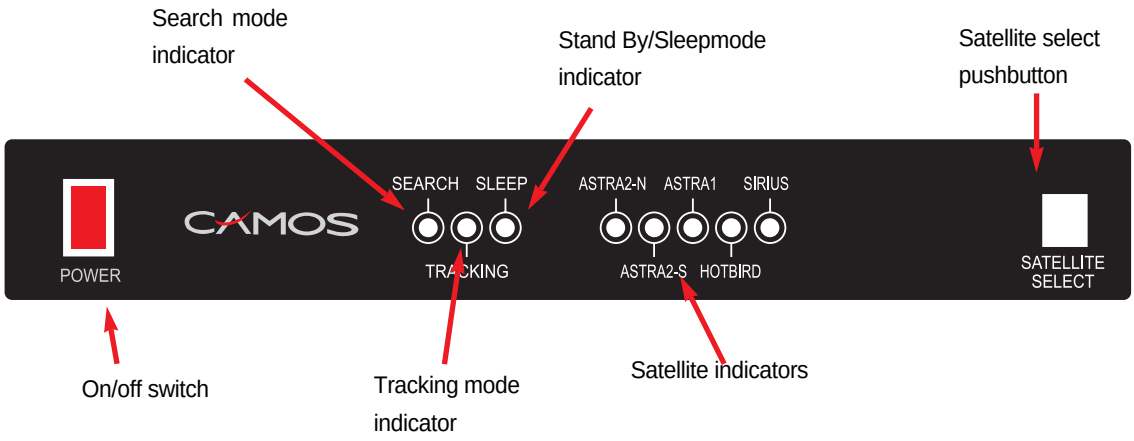


Control box (rearview)

4. Install your satellite receiver (CAMOS SVR 200 e.g.) according to it's user manual and connect it to the control box via the short white co ax cable.



4. Starting up



1. Switch on your satellite receiver and monitor/TV. Now you can switch on the control box.
2. The antenna starts the search mode and, after a while, finds the desired satellite. The duration of the search mode depends on your location and is about appr. 30 seconds and 2 to 3 minutes.

5. Operating the antenna

1. Selecting a satellite / Search mode

Push the "SATELLITE SELECT" button as often until the desired satellite indicator lights up.

ASTRA 2 N	Select this position when you are in the northern part of ASTRA2 footprint.
ASTRA 2 S	Select this position when you are in the southern part of ASTRA2 footprint.
ASTRA 1	Select this position for Astra 1
HOTBIRD	Select this position for Hotbird
SIRIUS	Select this position for Sirius

Now the antenna starts searching and the indicator for the search mode (SEARCH) lights up.

2. Tracking mode

When the antenna has found the selected satellite, the satellite indicator goes out for 1 second and lights up again. Now the satellite is logged in and the tracking indicator (TRACKING) lights up.
Sometimes it happens that the antenna at first stops and logs on a different satellite (depends on your position, signal strength and weather condition). In this case the indicator of the different satellite lights up for a second and goes out again. The antenna has now recognized the wrong satellite and moves to the correct position.

Now you can enjoy TV on the move.
Attention! For safety reasons the driver is not allowed to watch TV when driving a car!

On the move it is normal that obstacles like tunnels, trees or buildings cut the direckt connection to the satellite. In this case no reception is possible.

As soon as the vehicle is in the reception area of satellite again following happens (depending on interruption time):

a) Short interruption: Antenna starts tracking again and finds satellite within appr. 30 seconds

b) Interruption for a longer time: Antenna starts search mode again and will find the selected satellite within short time (max. appr. 2-3 minutes).

3. Standby / Sleep mode

When your vehicle does not move (antenna keeps same position) the sleep mode is automatically activated after appr. 2 minutes (SLEEP indicator lights up).

If the antenna position is changed (vehicle starts driving again e.g.) the antenna automatically starts the search mode (SEARCH) or tracking mode (TRACKING), depend on how much the antenna position have changed.

The standby / sleepmode can manually be activated as well: After logging in pls push the "SATELLITE SELECT" button once.
You can disactivate the sleepmode by pushing this button again.
If you completely switch off the antenne (overnight e.g.) the antenna starts with search mode again after switching on the next day.

6. Trouble shooting

No reception / no picture:

a) Any obstacles (trees, buildings or roof constructions) between antenna and satellite?
   Choose a different position or wait until your vehicle is in reception area of satellite again.

b) Correct installation of antenna cables? Defective cables (broken)?
   Pls check the cables!

c) Did you select the right satellite? Pls check wether the satellite you have selected in your receiver corresponds with the satellite you have selected on control box.

d) Did you switch on control box and satellite receiver?

e) Power supply ok? Pls check power cable(s).

If you want to use a different cable (from antenna to control box):

Pls only use high quality and low loss co-ax cable. The F-plugs must be high quality types as well, because besides the RF signal the power supply voltage for antenna passes this cable. Minimum losses may have an effect on reception.

We strongly advise to use the supplied cables.

7. Technical Data

Frequency range:	10,7 to 12,75 GHz
LNB-Type:	universal
Polarisation:	horizontal and vertical
Gain:	32dBi(CSA-230M)
	33dBi(CSA-240M)
Elevation:	17˚~ 60˚
Azimuth:	not limited
Power supply:	12V / appr. 27W max.
Operating temperature:	-22˚C to +55˚C
Diameter:	69,5cm
Height:	29.5cm (CSA-230M)
	39.5cm (CSA-240M)
Weight (without control box):	12,4kg (CSA-230M) / 12,7kg (CSA-240M)

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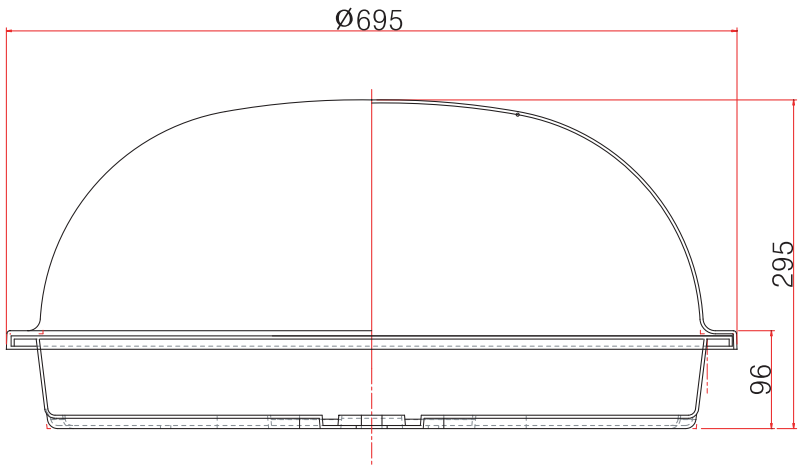
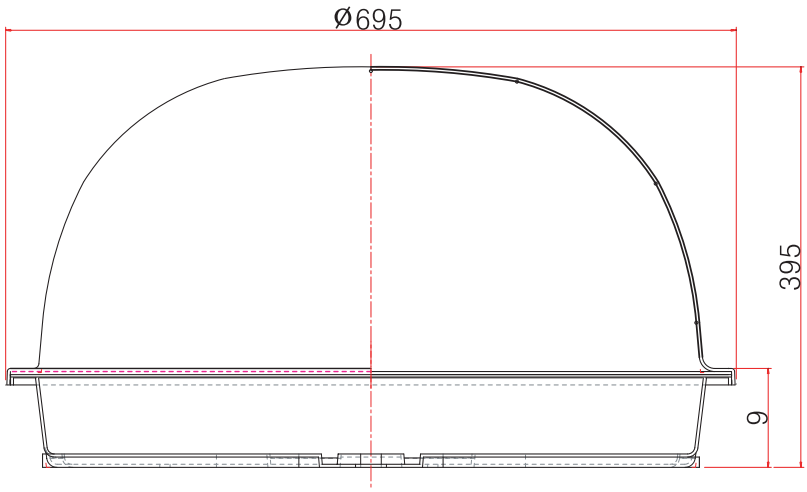


CSA-230M



CSA-240M